

CLAIMS

1. A method for injection moulding, comprising
introducing, under pressure, a melt into a cavity (14) defined by two mould halves (10, 11) of a mould (6), characterised by the steps of
joining the mould halves (10, 11) for definition of said cavity (14), by moving at least one of the mould halves (11) along a first axis (A1), and
arranging a locking means (7) on the mould (6) by moving along a second axis (A2) extending transversely of said first axis (A1),
said locking means (7) having locking surfaces (19) which grasp the mould (6) and its joined mould halves (10, 11),
at least one locking surface (19) wedgingly engaging a complementarily designed surface (17) of the mould (16) to cause a conversion of the force by which the locking means (7) is arranged on the mould (6), into a locking force for holding the mould halves (10, 11) together in their joined state.
2. An assembly for injection moulding, comprising a mould (6) with two mutually joinable mould halves which in their joined state define a cavity (14), a first (3) and a second (4) section, and a unit (5) for bringing together said sections (3, 4),
said sections (3, 4) in their joined state being intended for locking of the mould (6) with its mould halves (10, 11) in their joined state to allow introduction of a melt under pressure into said cavity (14), characterised in that
said mould (6) is supported by said first section (3), and
said second section (4) supports a locking means (7) comprising two separately arranged members (18) which

each have a locking surface (19) which is engageable with a complementarily designed surface (17) of the mould (6) by bringing together the sections (3, 4).

3. An assembly as claimed in claim 2, in which said locking surfaces (19) are arranged in such manner that, when bringing together the sections (3, 4), they grasp the mould (6) for locking its mould halves (10, 11) in their joined state.

4. An assembly as claimed in claim 2 or 3, in which at least one of said locking surfaces (19) has a wedge angle (α) for causing a wedging engagement with the surface (17) which is designed complementarily thereto, when bringing together the sections (3, 4).

5. An assembly as claimed in claim 4, in which both locking surfaces (19) have a wedge angle (α).

6. An assembly as claimed in claim 4 or 5, in which the wedge angle (α) is less than 45°.

7. An assembly as claimed in claim 6, in which the wedge angle (α) is in the range of 1-25°.

8. An assembly as claimed in any one of claims 2-7, in which said members (18) are connected with each other.

9. An assembly as claimed in claim 8, in which the members (18) are connected with each other by means of a tension element (20).

10. An assembly as claimed in claim 9, in which the tension element (20) comprises metal plates (21) which are arranged on both sides of the members (18), the members (18) being arranged with their locking surfaces (19) facing each other.

11. An assembly as claimed in any one of claims 2-10, in which the mould halves (10, 11) of the mould (6) are joinable along a first axis (A1) and the unit (5) acts to bring together the sections (3, 4) along a second axis (A2) which extends transversely of the first axis (A1).

12. An assembly as claimed in any one of claims 2-11, in which a first (10) of said mould halves (10,

11) is fixedly arranged and a second (11) of said mould halves (10, 11) is movingly arranged.

13. An assembly as claimed in any one of claims 2-12, in which the first section (3) is fixedly arranged and the second section (4) is movingly arranged.

14. An assembly as claimed in any one of claims 2-13, in which the mould halves (10, 11) in their joined state define a plurality of cavities (14) which are not necessarily identical.

10 15. An assembly as claimed in claim 14, in which said cavities form separate groups.

16. An assembly as claimed in claim 15, comprising a plurality of extruder units, each of which is adapted to supply a melt to a group of cavities.

15 17. An assembly as claimed in any one of claims 2-16, in which the mould (6) comprises a plurality of pairs of mutually joinable mould halves (10, 11).

20 18. An assembly as claimed in any one of claims 2-17, in which the first section (3) supports a plurality of moulds (6).

19. An assembly as claimed in claim 18, in which the locking means (7) for each mould (6) has a pair of separately arranged members (18) which each have a locking surface (19).

25 20. An assembly for injection moulding, comprising a mould (6) with two mutually joinable mould halves (10, 11) which in their joined state define a cavity (14),

characterised by

30 a locking means (7) for locking the mould (6) with its mould halves (10, 11) in their joined state to allow introduction of a melt under pressure into said cavity (14),

35 said locking means (7) comprising two separately arranged engaging means (23) and a tension element (20) which connects said engaging means (23) with each other,

said locking means (7) being movable to a position, in which its engaging means (23) engage said mould (6) during simultaneous stretching of said tension element (20).

5 said stretching generating a locking force for causing
locking of the mould (6).

21. A mould for an injection moulding assembly (1), comprising two mutually joinable mould halves (10, 11), which in their joined state define at least one cavity.

10 (14), characterised in that the mould is
mountable on a first section (3) of the injection moulding assembly (1) and has external surfaces (17), with
which locking surfaces (19) of a locking means (7) supported by a second section (4) of the injection moulding
15 assembly (1) are engageable to lock the mould with its
mould halves (10, 11) in their joined state.

22. A method for injection moulding, comprising bringing together two sections (3, 4) for holding together joined mould halves (10, 11) of a mould (6), and introducing under pressure a melt into one or more cavities (14) defined by said joined mould halves (10, 11).

characterised by the step of bringing together the sections (10, 11) by means 25 of a force which is less than the resulting force which, during introduction of the melt into or more cavities (14), acts to divide the mould halves (10, 11).

23. A component produced in an injection moulding assembly as claimed in any one of claims 2-19.

30 24. Use of an injection moulding assembly as claimed
in any one of claims 2-19 for producing components for a
mobile phone.

25. A mobile phone, comprising components injection moulded in an injection moulding assembly as claimed in any one of claims 2-19.